

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 6,890,935 B2  
APPLICATION NO. : 09/845526  
DATED : May 10, 2005  
INVENTOR(S) : Gary Maurice Dull et al.

Page 1 of 3

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the Title page, #56 under U.S. Patent Documents, the following should be added,

5,212,188	05/1993	Caldwell	514/343
5,217,975	06/1993	Wadsworth	514/299
5,219,849	06/1993	Lotti	514/214
5,276,043	01/1994	Lippiello	514/343
5,346,906	09/1994	Baker	514/305
5,510,355	04/1996	Bencherif	514/305
5,583,140	12/1996	Bencherif	514/299
5,597,919	01/1997	Dull	544/242
5,604,231	02/1997	Smith	514/256
5,616,707	04/1997	Crooks	544/242
5,616,716	04/1997	Dull	546/300
5,663,356	09/1997	Ruecroft	546/300
5,780,734	07/1998	Goulet	514/19
5,811,442	09/1998	Bencherif	514/384
5,824,692	10/1998	Lippiello	514/343
5,849,764	12/1998	Goulet	514/337
5,852,041	12/1998	Cosford	514/351
5,859,004	01/1999	Olesen	514/214
5,861,423	01/1999	Caldwell	514/351
5,952,339	09/1999	Bencherif	514/294

On the Title page, #56 under Foreign Patent Documents, the following should be added,

WO	WO 94/08992	04/1994
WO	WO 94/14805	07/1994
WO	WO 95/03306	02/1995
WO	WO 96/12711	05/1996
WO	WO 97/01556	01/1997
WO	WO 97/11072	03/1997
WO	WO 98/25619	06/1998
WO	WO 98/54181	12/1998
WO	WO 99/00385	01/1999
WO	WO 99/32117	07/1999
WO	WO 00/34276	06/2000

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the Title page, #56 under Other Publications, the following should be added,

Barnes, P.J., "Molecules in Focus Nuclear Factor-KB," *Int. J. Biochem. Cell. Biol.*, 29(6): 867-870 (1997).

Birtwistle, J., "The Role of Cigarettes and Nicotine in the Onset and Treatment of Ulcerative Colitis," *Postgrad. Med. J.*, 72: 714-718 (1996).

Ebadi, et al., "Neurotrophins and Their Receptors in Nerve Injury and Repair," *Neurochem., Int.*, 30(4/5): 347-374 (1997).

Hanisch, et al., "Modulation of Hippocampal Acetylcholine Release: A Potent Central Action of Interleukin-3," *The Journal of Neuroscience*, 13(8): 3368-3374 (1993).

Holladay, et al., "Neuronal Nicotinic Acetylcholine Receptors as Targets for Drug Discovery," *J. Med. Chem.*, 40(26): 4169-4194 (1997).

Miller, J.G., "Neural-Immune Interactions in Sympathetic Ganglia," *TINS*, 16(10): 419-423 (1993).

Madretsma, et al., "In-Vivo Effect of Nicotine on Cytokine Production by Human Non-Adherent Mononuclear Cells," *European J. of Gastroen. & Hepat.*, 8(10): 1017-1020 (1996).

Madretsma, et al., "Nicotine Inhibits the In Vitro Production of Interleukin 2 and Tumour Necrosis Factor  $\alpha$  by Human Mononuclear Cells," *Immunopharmacology*, 35: 47-51 (1996).

Matthys, P. and A. Billiau, "Cytokines and Cachexia," *Nutrition*, 13: 763-770 (1997).

Olesen, et al., "Identification of Novel (Isoxazole) Methylene-1-Azabicyclic Compounds with High Affinity for the Central Nicotinic Cholinergic Receptor," *Bioorganic & Medicinal Chemistry Letters*, 7(15): 1963-1968 (1997).

Olivio, et al., "Syntheses of New Open-Ring and homo-Epipatidine Analogues from Tropinone," *J. Org. Chem.*, 64(13): 4966-4968 (1999).

On the Title page, #56 under Other Publications, the following should be added,

Peacock, et al., "The Effect of Nicotine on Reproduction and Attachment of Human Gingival Fibroblasts in Vitro," *J. Periodontol.*, 64(7): 658-665 (1993).

Pullan, R.D., "Colonic Mucus, Smoking and Ulcerative Colitis," *Ann R. Coll. Surg. Engl.*, 78: 85-91 (1996).

Pullan, et al., "Transdermal Nicotine for Active Ulcerative Colitis," *The New England Journal of Medicine*, 330(12): 811-815 (1994).

Sandborn, et al., "Nicotine Tartrate Liquid Enemas for Mildly to Moderately Active Left-Sided Ulcerative Colitis Unresponsive to First-Line Therapy: A Pilot Study," *Ailment Pharmacol. Ther.*, 11: 663-671 (1997).

Balfour, S.R., "Pathogenesis and Immune Mechanisms of Chronic Inflammatory Bowel Diseases," *The American Journal of Gastroenterology*, 92(12): 5S-11S (1997).

Secor, H. and J. Seeman, "The Preparation of 'Elongated' Nicotine Analogues," *Heterocycles*, 24(6): 1687-1698 (1986).

Silverstein, et al., "Cigarette Smoking and Ulcerative Colitis: A Case-Control Study," *Mayo Clin. Proc.*, 69: 425-429 (1994).

Van Dijk, et al., "Nicotine Inhibits Cytokine Synthesis by Mouse Colonic Mucosa," *European Journal of Pharmacology*, 278: R11-R12 (1995).

Wallace, J. and B. Chin, "Inflammatory Mediators in Gastrointestinal Defense and Injury," *Proc. Soc. Exp. Biol. Med.*, 214: 192-203 (1997).

Yanina, et al., *Khim-Karm*, 21(7): 808-811 (1987).

Zijlstra, et al., "Effect of Nicotine on Rectal Mucus and Mucosal Eicosanoids," *Gut*, 35: 247-251 (1994).

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**In the Specification:**

Column 4, line 59, add comma after “-O(CR’R”) ,NR’R”

Column 8, line 44, “yrrolidine” should read, --pyrrolidine--

Column 10, line 6, “Snylett” should read --Synlett--

**In the Claims:**

Claim 1, column 42, line 63, “heterocycl” should read, --heterocycl--

Claim 15, column 44, line 35, “and X” should be added after --nitrogen--

Claim 18, column 46, line 16, --heterocycl-- should read, “heterocycl”

Signed and Sealed this

Third Day of October, 2006

A handwritten signature in black ink, appearing to read "Jon W. Dudas". The signature is stylized with a large, looped initial "J" and a cursive "Dudas".

JON W. DUDAS  
*Director of the United States Patent and Trademark Office*